

~~SECURITY INFORMATION~~
CENTRAL INTELLIGENCE AGENCY

CENTRAL INTELLIGENCE AGENCY

INFORMATION FROM

INFORMATION FROM
FOREIGN DOCUMENTS OR RADIO BROADCASTS

REPORT

CD NO.

COUNTRY

SUBJECT

Scientific - Physics, research

HOW

PUBLISHED Monthly periodical

DATE OF INFORMATION 1951

DATE DIST. 25 Feb 1952

WHERE

PUBLISHED Berlin

UNCLASSIFIED

NO. OF PAGES 2

DATE _____

PUBLISHED Jan 1951

FOR OFFICIAL USE ONLY

SUPPLEMENT TO
REPORT NO.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF ESPIONAGE ACT 50 U. S. C. 31 AND 32, AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. REPRODUCTION OF THIS FORM IS PROHIBITED

THIS IS UNEVALUATED INFORMATION

SOURCE

Die Technik.

PHYSICS PROJECTS IN RUMANIA

Prof Eugen Badarau, Mem
Acad of Rumanian People's Republic
Budapest

Physicists of the Rumanian People's Republic are engaged in the following projects:

1. A group of physicists is carrying on magnetic explorations to discover new ore deposits. A magnetic chart of Rumania is in preparation. It is expected that local magnetic deviations will reveal the location of deposits of magnetic metals. An example of this was the discovery of the magnetic deviation at Kursk, which lead to new ore deposits.
2. A group of physicists is studying calibration of temperatures. They are considering the creation of new instruments to measure metallurgical processes, such as the smelting and hardening of metals. Present instruments do not meet the required standards of precision. The establishment of a central office for checking and verifying such instruments is being studied.
3. A fairly large number of physicists of the Rumanian People's Republic are engaged in research on high-quality permanent magnets. Lack of such magnets has prevented the production of many types of equipment, such as electrical instruments (galvanometers, ammeters, voltmeters) which are urgently required by industry for the electrification of Rumania, devices for making automatic certain processes of production, relays, loud-speakers, magnetos, magnets for dynamos, and other items. Import of such materials from abroad would unnecessarily burden the balance of trade, since the required raw materials are in domestic supply.
4. A group of physicists is studying the use of plastics as insulating material for electric wiring, as plates for dynamos, and various other devices. Large amounts of insulating material will be required for the electrification plan.

- 1 -

CLASSIFICATION

~~RESTRICTED~~

~~RESTRICTED~~

DISTRIBUTION

[illegible]

FOR OFFICIAL USE ONLY

STAT

~~RESTRICTED~~

~~RESTRICTED~~

5. Another project is concerned with silicon thermopiles. The lack of suitable electric generators in rural areas makes radio reception difficult and thus hampers cultural work among the masses. The production of thermopiles would assure the supply of simple and inexpensive radio receivers to every part of the country. The problem has been solved in principle.

6. The production of acetylene from methane, of which there is an enormous natural supply, has been achieved in the laboratory. Acetylene will be used for welding and for organic syntheses in the chemical industry.

7. The application of X-rays to chemical analysis and to the discovery of flaws in machine parts is now under study. The widespread use of X-rays would require the construction or import of numerous complicated and expensive installations. Therefore, simpler methods must be sought.

8. Specialists in spectroscopy are now doing research in the spectroscopic analysis of alloys, mineral and animal oils, protective glass for welding, and other materials.

9. Research is in progress in the field of radioactivity. A search is being made for uranium deposits. The procurement of radioactive substances will be useful in medicine, in the field of theoretical knowledge, and in the production of atomic energy.

10. A large number of physicists are carrying on research in fluorescent light. The particular problems under study are the production of white light, the improvement of light sources in general, and the training of young physicists.

11. A number of research groups are studying supersonic vibrations and their practical application. A few groups are investigating the application of supersonic vibrations to medicine and agriculture, with satisfactory results. For example, seeds of numerous crops were exposed to supersonic vibrations before planting, with a resultant substantial increase in the size of the harvest. With the help of these vibrations, physicists were able to prepare stable emulsions which were of great importance for medicine and bacteriology; for example, in the treatment of tuberculosis.

- E N D -

- 2 -

~~RESTRICTED~~